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FIGURE 1

Alignment of Biotin Synthase Proteins from Barley (SID18), Corn (SID 20-24), Prickly Poppy (SID 28), Soybean (SID 28 and 30), and Wheat (SID 32)

SID18	TTTPS-----AVSP--SAAAPFRPALLAE--PAMLLLLARSLRSRVPFASAVSAAPFSSVSAAAAEAEARAVERDGGPRNDWTRP
SID20	MA-----LMLLARNLRSRLRPPLAA--AAAFSS--AAAEARAIRDGPRNDWSRP
SID22	MA-----LMLLARNLRSRLRPPLAA--AAAFSS--AAAEARAIRDGPRNDWSRP
SID24	MA-----LMLLARNLRSRLRPPLAA--AAAFSS--AAAEARAIRDGPRNDWSRP
SID26	-----MLKVQSL-RAR-----LRPLIFIS-----TFSSLSSSSSSAAAAVQAERTIKEGPRNDWSRD
SID28	TKPNPKHYRCCLLSLSCLYSQISHSFVSVSLPNFEFESKMFRLARPIFRA--PSLWALHSSYAYSSASAAAIAERAIKEGPRNDWSRD
SID32	T-----MMLVRSVFRSQ-----LRPSV-SG-----GLQASVCYSSLSAASAEARTIREGPRNDWSRD
1705463	MAT-----LRTSLRSLLILRSNTPKLAPIS-----SSVRLQVQKSRNYGTVSSVPPQATETSTSPSKDVYQEALNATE-PRSNWTRE
SID30	2995363M-----FT-----RTIRQQIRSSALSLV-----RNNWTRE
6321725	M-----MSTIYRHLSTA--RPALT KYATNAA--VKSTTASSEASTLGALQYALS-----DEPSHSWTKS
SID18	EIQAIYDSPLLDLLFHGAQVHRNVHKFREVOQCTLLSIKTGGCSEDCSYCPQSSRYSTGLKAEKLMKKDAVLEAAKKAKEAGSTRFCMGA
SID20	EIQAVYDSPLLDLLFHGAQ-----SSRYNTGLKAQKLMNKYAVLEAAKKAKEGSTRFCMGA
SID22	EIQAVYDSPLLDLLFHGAQVHRNVHKFREVOQCTLLSIKTGGCSEDCSYCPQSSRYNTGLKAQKLMNKDAVLEAAKKAKEGSTRFCMGA
SID24	EIQAVYDSPLLDLLFHGAQVHRNVHKFREVOQCTLLSIKTGGCSEDCSYCPQSSRYNTGLKAQKLMNKYAVLEAAKKAKEGSTRFCMGA
SID26	EIKSVYDSPVLDLLFHAAQVHRHAHNHFREVOQCTLLSVKTTGGCSEDCSYCPQSSRYDTGVKAQKLMNKDAVLAQAAEKAEAGSTRFCMGA
SID28	QVKSIIYDSPILDLLFHGAQVHRHAHNHFREVOQCTLLSIKTGGCSEDCSYCPQSSKYDTGVKGQRLMNKEAVLQAAKKAKEAGSTRFCMGA
SID32	-----RDVLEAAKKAKEAGSTRFCMGA
1705463	EIKSVYDSPLLDLLFHGAQVHRNVHNFREVOQCTLLSIKTGGCSEDCSYCPQSSRYSTGVKAQRLMSKDAVIDAAKKAKEAGSTRFCMGA
SID30	EIKAIYDKPLMELCWGAGSLHRKFHIPGAIQMCTLLNIKTGGCSEDCSYCAQSSRYQTGLKASKMVSVESVLAARIAKDNKGSTRFCMGA
2995363	EIQKIYDTPLIDLIFRAASIIHRKFHDPKKVQOQCTLLSIKTGGCTEDCKYCAQSSRYNTGVKATKLMKIDEVLEKAKIAKAKGSTRFCMGS
6321725	QKLEIYHTPLLELTHAAQLQHRKWHDP TKVQLCTLMNIKSGGCSEDCKYCAQSSRNDTGLKAEKMKVKVDEVIKEAEAEAKRNGSTRFCCLGA

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FIGURE 2: Clone cdt2c.pk002.c17 Contains a 99 Nucleotide Deletion

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SID19 CGACTGGAGCCGGCCCGAGATCCAGGCCGTCTACGACTCACCGCTCCTCGACCTCCTCTT
SID21 CGACTGGAGCCGGCCCGAGATCCAGGCCGTCTACGACTCACCGCTCCTCGACCTCCTCTT

SID19 TCACGGGGCTCAG-----
SID21 TCACGGGGCTCAGGTCCACAGAAATGTCCATAAAATTCAGAGAAGTCAGCAATGCACACT

SID19 -----
SID21 TCTTTCAATCAAGACTGGTGGATGCAGTGAAGATTGTTCTTACTGTCTCAGTCATCAAG

SID19 ATACAACACTGGATTGAAGGCCCCCAAAATTTGATGAACAAATATGCTGTCTTGGAAAGCAGC
SID21 ATACAACACTGGATTGAAGGCCCCCAAAATTTGATGAACAAAGATGCTGTCTTGGAAAGCAGC

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